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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,598	09/16/2003	Gerald Winton Lankford	555255012542	3266

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EXAMINER

KARIKARI, KWASI

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,598

Applicant(s)

LANKFORD, GERALD WINTON

Examiner

Kwasi Karikari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>September 20 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 20 September 2004 is in compliance with the provision of 37 CFR 1.97, has been considered by the Examiner, and made of record in the application file.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. The applicant cited figure 2 item # 60 on page 20, line 18. The examiner could not identify such item number in figure 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,6,8,9,10,11,12,13,14,18,19 and 20 are rejected under U.S.C. 103(a) as being

Unpatentable over **Sanchez Ferreras et al.**, (hereinafter Sanchez) (**20050118998 A1**).

in view of **Applicant's Admitted Prior Art**.

Regarding **claims 1 and 13** Sanchez discloses apparatus (system) for facilitating communication of the mobile node (mobile terminal) when roaming beyond the home-network portion (foreign network, Fig. 1 item # 3) associated therewith (Page 1, line [0005] and Fig. 1), said apparatus comprising:

a detector (processor 4) adapted to receive positional information associated with the mobile node, the positional information communicated by the mobile node to the network part at selected times when the mobile node communicates with the network part, said detector for detecting values of the positional information and for forming indications of the values of the positional information (processor continuous reads information exchange, see Page 2, line [0025]);

an associator coupled to said detector to receive the indications formed by said detector of the values of the positional information, said associator for associating positioning of the mobile node together with one of the first and at least second network portions, respectively, to which the positional information is communicated, thereby to indicate, if the one of the network portions, with which the positioning information indicates the mobile node to be associated, is other than the home-network portion (an analyzer (6), which is connected to the processor (4), analyzes information to detect location change of mobile terminal, see Page 2, line [0025] ; and

a storage (data base 7 stores information of mobile terminal and updates the current location of the mobile terminal, see Page 3, line [0033]), element coupled to said associator, said storage element for storing values representative of associations formed by said associator, the values together forming a roaming network table indicating with which of the network portions the mobile node is capable of communicating (date base 7 creates log table from the information obtained when terminal enter/exit different network, see Pages 1 and 3, lines [0012] and [0041] respectively), but fail to teach a (radio communication system/method having at least a

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first mobile node operable to communicate with a network part, the network part having a first network portion and at least a second network portion, the first network portion operated by a first network operator and the at least the second network portion operated by at least a second network operator, a selected one of the first network portion and the at least the second network portion forming a home-network portion associated with the mobile node).

Applicant's admitted prior art teaches " a radio communication system/method having at least a first mobile node operable to communicate with a network part, the network part having a first network portion and at least a second network portion, the first network portion operated by a first network operator and the at least the second network portion operated by at least a second network operator, a selected one of the first network portion and the at least the second network portion forming a home-network portion associated with the mobile node, an improvement, see Page 1, lines 1-8 and Page 3 (claim 13), line 1 to Page 4, line 22 ".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Applicant's admitted prior art and Sanchez for the benefit of achieving a system which provides subscribers with specific information about visiting networks.

Regarding **claims 2 and 14**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claims 1 and 15 and in addition, Sanchez further discloses an identifier (operator identifier, see Page 3, line

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[0045]) associated therewith and wherein said detector is further adapted to receive the identifier and for detecting values (information exchange, Page 2, lines [0025]) thereof.

Regarding **claims 6,9 and 18**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claims 1 and 15 and in addition, Sanchez further discloses mobile node registers with the network part at selected times (location update every time mobile terminal changes location, see Page 2, line [0021]) and wherein the positional information detected by said detector is communicated by the mobile node pursuant to registration with the network part; the roaming network table further includes an indication of a time at which the values representative of the associations are stored at said storage element; and the roaming table further comprises identifying times at which values are entered thereat (table contains date of the last location update, see Page 3, line [0049]).

Regarding **claim 8**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claim 2 and in addition, Sanchez further discloses said associator further identifies the mobile node whose positioning is associated together with the one of the first and at least second network portions (an analyzer (6), which is connected to the processor (4), analyzes information to detect location change of mobile terminal, see Page 2, line [0025]; Page 3, lines [0043-0045]).

Regarding **claim 10**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claim 9 and in addition, Sanchez further discloses a roaming table entry deleter coupled to said storage element, said roaming table entry deleter selectably operable to delete selected values of the roaming

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entry table maintained at said storage element (subscriber's entry and exit information at the network are periodically eliminated from the log table, see Page 4, line [0055]).

Regarding **claim 11 and 20**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claims 10 and 19 and in addition, Sanchez further discloses said roaming table entry deleter deletes values of the roaming entry table stored thereat for longer than a selected time period (subscriber's entry and exit information at the network are periodically eliminated from the log table, see Page 4, line [0055]).

Regarding **claim 12**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claim 1 and in addition, Sanchez further discloses the radio communication system comprises a multi-user system, (foreign network, 3) wherein the at least the first mobile node comprises a plurality of mobile nodes, wherein said detector detects communications of any of the plurality of the mobile nodes, wherein said associator associates positioning of any of the plurality of mobile nodes, and wherein the roaming network table formed at said storage element includes values associated with any of the plurality of mobile nodes (data processing means have been provided between the gateway and the mobile terminal network, see Page 1, line [005]).

Regarding **claim 19**, Sanchez, as modified by the applicant's admitted prior art, clearly discloses the claimed invention as applied to claim 18 and in addition, Sanchez further discloses the operations of accessing the roaming network table and determining in which of the first and at least second network portions that the mobile node,

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associated with the home network portion, can communicate when roaming beyond the home-network portion (see Page 3, lines [0032-0036]).

Claims 3,4,5,15,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sanchez** as applied in view of **Applicant's admitted of prior art** and further in view of **Aerrabotu et al.**, (hereinafter Aerrabotu) **U.S. (20040190522 A1)**.

ck Regarding **claims 3 and 15**, Sanchez, as modified by the applicant's ^{*admitted*} prior art, ^{*^*} fails to disclose a the apparatus/method of claims 2 and 14 wherein the radio communication system comprises a cellular radio communication system that provides for GPRS (General Packet Radio Service) and wherein the identifier associated with the mobile node comprises at least a portion of an IMSI (International Mobile Subscriber Identity) number.

Aerrabotu teaches that the International Mobile Subscriber Identity (IMSI) is used as the mobile station identity in GPRS attach procedure when the mobile station does not have a SIM in a packet-switched data domain (see, Pages 1 and 2, lines [0010] and [0014] respectively).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Aerrabotu, Sanchez and the Applicant's admitted prior art in achieving a packet-switched data domain that enables call connection between mobile station and the network.

Regarding **claims 4 and 16**, Sanchez, as modified by the applicant's admitted prior art, fails to disclose a the apparatus/method of claims 3 and 15 wherein the IMSI

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number includes a Mobile Network Code (MNC) and wherein the at least the portion of the IMSI number of which said detector detects the values comprises the Mobile Network Code, the Mobile Network Code identifying the home network portion associated with the mobile node; and at least the portion of the IMSI number comprises a mobile network code, the mobile network code identifying the home network portion associated with the mobile node.

Aerrabotu teaches that the International Mobile Subscriber Identity (IMSI) is used as the mobile station identity in GPRS attach procedure when the mobile station does not have a SIM in a packet-switched data domain (see, Pages 1 and 2, lines [0010] and [0014] respectively); and further discloses that the IMSI consists of a unique pair of Mobile Network Code (MNC) (see Page 2, line [0014]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Aerrabotu, Sanchez and the Applicant's admitted prior art in achieving a packet-switched data domain that enables call connection between mobile station and the network

Regarding **claims 5 and 17**, Sanchez, as modified by the applicant's admitted prior art, fails to disclose a the apparatus/method of claims 3 and 15 wherein the IMSI number includes a Mobile Country Code (MCC) and wherein the at least the portion of the IMSI number of which said detector detects the values comprises the Mobile Country Code; and at least the portion of the IMSI number comprises a mobile country code.

Aerrabotu teaches that the International Mobile Subscriber Identity (IMSI) is used as the mobile station identity in GPRS attach procedure when the mobile station does not have a SIM in a packet-switched data domain (see, Pages 1 and 2, lines [0010] and [0014] respectively); and further discloses that the IMSI consists of a unique pair of Mobile Country Code (MCC) (see Page 2, line [0014]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Aerrabotu, Sanchez and the Applicant's admitted prior art in achieving a packet-switched data domain that enables call connection between mobile station and the network.

Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over **Sanchez** as applied in view of **Applicant's admission of prior art** and further in view of **Aerrabotu et al.**, (hereinafter Aerrabotu) **U.S. (20040203598 A1)**.

Regarding **claim 7**, Sanchez, as modified by the applicant's admitted prior art, fails to disclose a the apparatus/method of claim 1 wherein communications of the mobile node are formatted into messages, the messages having header parts, and wherein the positional information detected by said detector is embodied in the header parts of the messages.

Aerrabotu teaches that the message header message portion includes a signature data field for receiving authenticating signature data from a network (see Page 2, line [0027]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Aerrabotu, Sanchez and the Applicant's admitted prior art in

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achieving a wireless communication apparatus that is capable of providing session request message.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Froula (6,356,767) teaches a method and apparatus for controlling mobile access to a wireless communication system.

AMIN et al., (20020086671 A1) teaches a roaming authorization system

Dufva et al. (20040087315 A1) teach a location services interworking with intelligent network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-2856. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571- 272 5905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



**CHARLES APPIAH
PRIMARY EXAMINER**

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).